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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,839

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Brian S. Appel

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EXAMINER

BOYER, RANDY

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

06/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/716,839

Applicant(s)

APPEL ET AL.

Examiner

RANDY BOYER

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-30 and 32-41 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 21-29, 32 and 37 is/are rejected.
7) ☒ Claim(s) 30, 33-36 and 38-41 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/088)
Paper No(s)/Mail Date 6 February 2008.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9 April 2008 has been entered.

Response to Amendment

2. Examiner acknowledges Applicant's response filed 9 April 2008 containing amendments to the claims and remarks. Examiner also acknowledges Applicant's Information Disclosure Statement filed 6 February 2008.
3. Claims 21-30 and 32-41 are pending.
4. The previous rejections of claims 21-30 and 32-36 are withdrawn in view of Applicant's amendment to the claims.
5. New grounds for rejection of claims 21-29, 32, and 37 are entered under 35 U.S.C. 102(b) and 35 U.S.C. 103(a). Likewise, objection is entered with respect to claim 38.

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6. Allowable subject matter is indicated with respect to claims 30, 33-36, and 38-41.

The objection and rejections follow.

Claim Objections

7. Claim 38 is objected to for lack of antecedent basis in the claim.
8. With respect to claim 38, the claim recites the limitation "the first, heated reactor outlet." Examiner notes that claim 32, from which claim 38 depends, refers to "a first, heated auger" and not "a first, heated reactor." Appropriate correction is required.

Claim Rejections - 35 USC § 102 / 35 USC § 103

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 21-29, 32, and 37 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bolz (US 4,980,029).

13. With respect to claim 21, Bolz discloses an apparatus (see Bolz, Fig. 2) for converting organic matter into carbon solids and a mixture of hydrocarbons, comprising: (a) a heater (51) configured to receive and heat the organic liquor to produce a mixture of liquid and vaporized oil, the heater (51) having an outlet; (b) a reactor (52) comprising a vessel having an inlet and first and second outlets wherein the inlet communicates with the heater outlet, the reactor (52) configured to receive and convert the mixture of liquid and vaporized oil into carbon solids and a mixture of hydrocarbon vapors and gases; (c) a first cooler (53) having an inlet and an outlet, the inlet communicating with the first reactor outlet for accepting the carbon solids, the first cooler being configured for containing and cooling the carbon solids accepted from the reactor (52); and (d) a second cooler (25) having an inlet and an outlet, the inlet communicating with the second reactor outlet for accepting the mixture of hydrocarbon vapors and gases (see Bolz, Fig. 2 and accompanying text).

14. With respect to claims 22-29, Bolz discloses wherein the reactor (52) is an auger (see Bolz, Fig. 2); wherein the heater (51) comprises a separate vessel defining a

chamber and one or more tubes (59) to promote efficient heat exchange; wherein the first cooler (53) is an auger (see Bolz, Fig. 2); wherein the apparatus further comprises a storage system (54, 62) having an inlet communicating with the first cooler outlet for accepting the carbon solids from the first cooler (53); wherein the organic feed may be preheated (see Bolz, column 3, lines 35-56); wherein an airlock (56) is disposed between the first reactor outlet and the first cooler inlet; wherein an airlock (46) is disposed at the first cooler outlet; and wherein a steam source communicates with the heater (see Bolz, column 6, lines 54-62).

15. With respect to claims 32 and 37, Bolz discloses an apparatus comprising: (a) a heated vessel (51) having an inlet and an outlet; (b) a first, heated auger (52) having an inlet and an outlet, the inlet and outlet being configured and dimensioned to permit higher pressure to be applied in the first auger (52), the first auger inlet communicating with the vessel outlet (see Bolz, Fig. 2; and column 3, lines 45-48); (c) a second, cooled auger (53) having an inlet in communication with the first, heated auger outlet, the second auger (53) providing for cooling of solids received from the first, heated auger (see Bolz, Fig. 2; and column 12, lines 52-67); (d) a condenser (25) in communication with the first, heated auger outlet to receive vapors and gases therefrom; and (e) a water source communicating with the second, cooled auger (53) providing cooling water (see Bolz, Fig. 2; column 12, lines 52-67; and entire disclosure).

Allowable Subject Matter

16. Claims 30, 33-36, and 38-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

17. Applicant's arguments with respect to all claims have been considered but are moot in view of the new grounds of rejection.

Conclusion

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Randy Boyer whose telephone number is (571) 272-7113. The examiner can normally be reached Monday through Friday from 10:00 A.M. to 7:00 P.M. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn A. Caldarola, can be reached at (571) 272-1444. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RPB

/Glenn A Caldarola/

Acting SPE of Art Unit 1797